

# National Institutes of Health



## NIH X12 194 Implementation Guide For the Streamlined Non-Competing Award Process

Version 1.0

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# **1 Purpose and Business Overview**

## **1.1 Document Purpose**

The purpose of the “NIH X12 194 Implementation Guide for the Streamlined Non-competing Award Process (SNAP)” is to provide standardized data requirements and content to all users interested in submitting SNAP data to the National Institutes of Health (NIH) via the X12 194 (Grant or Assistance Application) transaction set. The guide provides a detailed explanation of the transaction set by defining uniform data content and identifying valid code tables. This will aid users in the successful encoding of SNAP data from a proprietary format to the X12 194 standards required by NIH.

Expected users of this implementation guide include NIH grantee organizations and third party vendors that conduct business with NIH on behalf of a grantee organization (i.e., grantee organization agents).

## **1.2 Version and Release**

The “NIH X12 194 Implementation Guide for the Streamlined Non-competing Award Process” is based on the Accredited Standards Committee (ASC) X12 standards, approved for publication in December of 1997, referred to as Version 4 Release 1 (004010).

## **1.3 Business Usage and Definition**

NIH has deployed a pilot EDI system to receive and validate SNAP data. Grantee organizations (or their agents) use a subset of the 194 to encode SNAP data for transmission to this pilot system.

The NIH SNAP/EDI pilot system is being deployed as a phased implementation. Phase two, for which this manual is written, accepts all the Public Health Service (PHS) 2590 application kit pages that apply to SNAP:

- the Face Page, except requested costs (Form Page 1),
- the Progress Report Summary (Form Page 5),
- the Checklist (Form Page 6), and
- the Personnel Report, name and annual percent effort only (Form Page 7).

In addition, the NIH SNAP/EDI pilot accepts identification of:

- active *other support* of key personnel,
- significant rebudgeting of funds,
- changes in the level of effort for key personnel,
- unobligated balance, and
- changes in the project abstract.

## **1.4 References**

1. U.S. Department of Health and Human Services, Public Health Service, Application for Continuation of a Grant (PHS 2590).” Rev. 4/98. OMB No. 0925-0001. Form approved through 02/28/2001.
2. “ASC X12 194 Transaction Set. Federal Implementation Conventions.” Version 004010. September 1998.

## **1.5 Terms and Abbreviations**

|       |                                             |
|-------|---------------------------------------------|
| 194   | X12 Grant or Assistance Application         |
| 2590  | Application for a Continuation of a Grant   |
| AO    | Administrative Officer                      |
| ASC   | Accredited Standards Committee              |
| DOB   | Date of Birth                               |
| DUNS  | Data Universal Numbering System             |
| EDI   | Electronic Data Interchange                 |
| EIN   | Entity Identification Number                |
| GUIDe | Government User Identifier                  |
| IACUC | Institutional Animal Care and Use Committee |
| IC    | Implementation Convention                   |
| IPF   | Institutional Profile                       |
| IRB   | Institutional Review Board                  |
| NIH   | National Institutes of Health               |
| OS    | Other Support                               |
| PHS   | Public Health Service                       |
| PI    | Principal Investigator                      |
| PPF   | Professional Profile                        |
| SNAP  | Streamlined Non-competing Award Process     |
| SO    | Signing Official                            |
| SSN   | Social Security Number                      |

## 1.6 Organization of Document

This document, the “NIH X12 194 Implementation Guide for the Streamlined Non-competing Award Process”, contains three major sections. Section 1 introduces the manual. Section 2 provides a data overview, and section 3 presents the implementation guidelines for the 194 transaction set. This document also contains one appendix, which provides a sample PHS 2590 application and associated X12 194 transaction set.

## 1.7 How to Use This Document

This manual is written for the technical user who understands EDI terms and concepts. It cannot be used as a standalone document; it must be used in conjunction with the PHS 2590 Application Kit [1], and the 194 Federal Implementation Conventions (ICs) [2].

This document presents, in tabular form, the 194 data segments used in phase two of the NIH SNAP/EDI pilot. Each table contains the complete set of data elements comprising the segment, as well as all data codes and qualifiers supported by NIH. Each table also contains any implementation notes specific to NIH requirements. NIH-specific implementation notes are italicized.

This guide specifies the usage for each data segment and data element applicable to phase two of the NIH SNAP/EDI pilot. The definitions for the usage codes are provided below.

| Usage | Expansion   | Meaning                                                                                                                                                     |
|-------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| R     | Required    | This item must be used to be compliant with this guide.                                                                                                     |
| O     | Optional    | The presence of this item is at the option of the sender.                                                                                                   |
| C     | Conditional | If the first element specified in the condition is present, then all other elements must be present.                                                        |
| N/U   | Not Used    | This item should not be used when complying with this guide. If a data segment or element labeled as N/U is received in a transaction, the data is ignored. |

## 1.8 Respondent Burden

This information collection activity is linked to the *U.S. Department of Health and Human Services, Public Health Service, Grant Application (PHS 2590, Rev. 5/95)*. The PHS 2590 form is approved through 02/28/2001; OMB No. 0925-0001.

The Public Health Service (PHS) estimates that it will take approximately 20 hours to complete this application for a regular research project grant. Items such as human

subjects and vertebrate animals are cleared and accounted for separately, and are not part of the time estimate. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a current valid OMB control number. If you have any comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, send comments to: NIH, Project Clearance office, 6701 Rockledge Drive, MSC 7730, Bethesda, MD 20892-7730, ATTN: PRA (0925-0001). **Do not send applications to this address.**

## 2 Data Overview

### 2.1 Information Flows

The transmission of SNAP data to NIH takes place as shown:

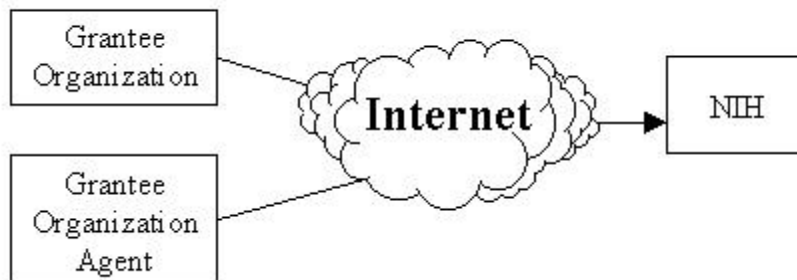


Figure 1. Data Stream Data Flow

### 2.2 Data Usage by Business Usage

The X12 194 is divided into two tables: Header and Detail.

- Table 1, the Header level, provides administrative data pertaining to the application, including information about the administrative and signing officials, and information about the applicant organization.
- Table 2, the Detail level, provides information pertaining to project dates, personnel, human subjects, vertebrate animals, and the progress report.

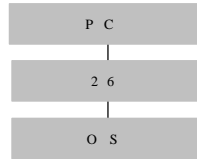
#### 2.2.1 SNAP HL Level Codes

When specifying SNAP data in Table 2, HL loops are used to define specific threads of information. Each HL loop is identified by an HL level code. This guide recognizes three HL level codes: Project (PC), Key Person (26), and Other Support (OS).

1. **Project:** This HL loop is used to provide project-related information, including dates, performance sites, information on human subjects and vertebrate animals, and the progress report.
2. **Key Person:** This HL loop is used to identify information about a key person.
3. **Other Support:** This HL loop is used to identify the Other Support associated with a key person, including other support dates, sources, percent effort, and description of the overlap. One iteration of this loop is required per Other Support project (changes in active support only are to be reported).



X12 HL loop types are hierarchical in structure. The following diagram depicts the relationships between the three HL loop types supported in phase two of the NIH pilot.



*Figure 2-2. HL Loop Type Hierarchy*

Within each HL loop type, only certain segments can be specified. The following table lists the HL loops types supported by the NIH SNAP/EDI pilot, and, for each HL loop type, which segments can be used.

| 194 Segment | PC | 26 | OS |
|-------------|----|----|----|
| QTY         |    | ✓  |    |
| DTM         | ✓  |    |    |
| PAM         | ✓  |    | ✓  |
| NX1         |    |    |    |
| YNQ         | ✓  |    |    |
| N9/L11/MTX  | ✓  |    |    |
| INX/K3      | ✓  |    |    |
| PPL/PD/PDD  | ✓  |    |    |
| LX/NM1-N4   | ✓  | ✓  | ✓  |
| PER         |    | ✓  |    |
| DMG         |    | ✓  |    |
| EMS         |    | ✓  |    |
| N9/MTX      | ✓  | ✓  | ✓  |

*Table 2-1. HL Loop Segment Usage*

### 2.3 Data/Transaction Set Model with Usage Matrix

The following matrix identifies the PHS 2590 items supported in phase two of the NIH SNAP/EDI pilot. The matrix correlates 2590 items with 194 data elements and 194 codes. The 194 codes are specified in parentheses.

| Page | 2590 Item                               | Item Definition                                                                                                                                    | 194 Reference                                                                                                                                                                                      |
|------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A    | Grant Number<br>Non-competitive Renewal | Identify as SNAP<br>Grant number assigned by NIH<br>(do not include dashes)                                                                        | 1/BGN07/020 (6N)<br>1/N901/060 (CT)<br>1/N902/060                                                                                                                                                  |
| A    | Total Project Period, From              | Estimated start date                                                                                                                               | 2/DTM01/050 (193)<br>2/DTM02/050                                                                                                                                                                   |
| A    | Total Project Period,<br>Through        | Estimated end date                                                                                                                                 | 2/DTM01/050 (194)<br>2/DTM02/050                                                                                                                                                                   |
| A    | Total Project Period,<br>Through        | Duration of project                                                                                                                                | 2/PAM01/060 (A3)<br>2/PAM02/060<br>2/PAM03-1/060 (MO)                                                                                                                                              |
| A    | Requested Budget Period,<br>From        | Budget period start date                                                                                                                           | 2/PD01/190 (CC)<br>2/PD02/190                                                                                                                                                                      |
| A    | Requested Budget Period,<br>Through     | Budget period length                                                                                                                               | 2/PD07/190 (38)<br>2/PDD01/200                                                                                                                                                                     |
| A.1  | Title of Project                        | Project title                                                                                                                                      | 1/N901/060 (4W)<br>1/MTX02/080                                                                                                                                                                     |
| A.2a | Principal Investigator (PI)             | Last name<br>First name<br>Middle name<br>Name prefix<br>Name suffix<br>PI address<br><br>PI city<br>PI state<br>PI zip code<br>Government User ID | 2/NM101/340 (9P)<br>2/NM103/340<br>2/NM104/340<br>2/NM105/340<br>2/NM106/340<br>2/NM107/340<br>2/N301/360<br>2/N302/360<br>2/N401/370<br>2/N402/370<br>2/N403/370<br>2/N901/400 (JD)<br>2/N902/400 |
| A.2b | PI Email Address                        | PI email address                                                                                                                                   | 2/PER07/375 (EM)<br>2/PER08/375                                                                                                                                                                    |
| A.2c | PI Department                           | Department of PI                                                                                                                                   | 2/N901/400 (19)<br>2/N907-01/400 (DP)<br>2/N907-02/400                                                                                                                                             |
| A.2d | PI Major Subdivision                    | Major subdivision of PI                                                                                                                            | 2/N901/400 (19)<br>2/N903/400                                                                                                                                                                      |
| A.3  | Organizational Code                     | N/A                                                                                                                                                | N/A                                                                                                                                                                                                |

| Page | 2590 Item                              | Item Definition                                                                                                                                                               | 194 Reference                                                                                                                                                                            |
|------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A.4  | Applicant Organization                 | Submitting organization DUNS<br>Organization IPF code<br>Organization name<br>Organization street address<br>Organization city<br>Organization state<br>Organization zip code | 1/NM101/090 (SE)<br>1/NM108/090 (1,9)<br>1/NM109/090<br>1/N901/130 (CR)<br>1/N902/130<br>1/NM103/090<br>1/N201/100<br>1/N301/110<br>1/N302/110<br>1/N401/120<br>1/N402/120<br>1/N403/120 |
| A.5  | Entity Identification Number           | EIN                                                                                                                                                                           | 1/N901/130 (EI)<br>1/N902/130                                                                                                                                                            |
| A.6  | Title and Address of AO                | Title<br>AO street address<br>AO city<br>AO state<br>AO zip code<br>AO email address<br>AO mail stop                                                                          | 1/N901/130 (P5)<br>1/N903/130<br>1/N301/110<br>1/N302/110<br>1/N401/120<br>1/N402/120<br>1/N403/120<br>1/PER07/140 (EM)<br>1/PER08/140<br>1/PER09/140                                    |
| A.7  | Human Subjects                         | Exemption number<br>Assurance of compliance no.<br>IRB full review<br>IRB approval date                                                                                       | 2/N901/100 (WI)<br>2/N902/100<br>2/N901/100 (F4)<br>2/N902/100<br>2/N903/100<br>2/N904/100                                                                                               |
| A.8  | Vertebrate Animals                     | Animal welfare assurance no.<br>IACUC approval date                                                                                                                           | 2/N901/100 (Y9)<br>2/N902/100<br>2/N904/100                                                                                                                                              |
| A.9  | Costs Requested for Next Budget Period | Costs requested for next budget period                                                                                                                                        | N/A                                                                                                                                                                                      |
| A.10 | Inventions and Patents                 | Inventions and patents                                                                                                                                                        | 2/N901/100 (L4)<br>2/N902/100 (I.6)<br>2/MTX02/110<br>(Reported, Not Reported)                                                                                                           |
| A.11 | Performance Site(s)                    | Organization name<br>Organization city<br>Organization state<br><br>Organization name<br>Organization city<br>Organization state                                              | 2/NM101/340 (61)<br>2/NM103/340<br>2/N401/370<br>2/N402/370<br>- and -<br>1/NM101/090 (FA)<br>1/NM103/090<br>1/N401/120<br>1/N402/120                                                    |

| Page  | 2590 Item               | Item Definition                                                                                                                                                                                                                                   | 194 Reference                                                                                                                                                                                                                                                                         |
|-------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A.12a | Principal Investigator  | Telephone number<br>Facsimile number<br>PI Mail stop                                                                                                                                                                                              | 2/PER03/375 (TE)<br>2/PER04/375<br>2/PER05/375 (FX)<br>2/PER06/375<br>2/PER09/375                                                                                                                                                                                                     |
| A.12b | Name of AO              | AO last name<br>AO first name<br>AO middle name<br>AO name prefix<br>AO name suffix<br>AO government user ID<br><br>AO telephone number<br><br>AO facsimile number                                                                                | 1/NM101/090 (AD)<br>1/NM103/090<br>1/NM104/090<br>1/NM105/090<br>1/NM106/090<br>1/NM107/090<br>1/N901/130 (JD)<br>1/N902/130<br>1/PER03/140 (TE)<br>1/PER04/140<br>1/PER05/140 (FX)<br>1/PER06/140                                                                                    |
| A.12c | Name and Title of SO    | Signing Official (SO) last name<br>SO first name<br>SO middle name<br>SO name prefix<br>SO name suffix<br>SO government user ID<br><br>SO title<br><br>SO telephone number<br><br>SO facsimile number<br><br>SO email address<br><br>SO mail stop | 1/NM101/090 (1B)<br>1/NM103/090<br>1/NM104/090<br>1/NM105/090<br>1/NM106/090<br>1/NM107/090<br>1/N901/130 (JD)<br>1/N902/130<br>1/N901/130 (P5)<br>1/N903/130<br>1/PER03/140 (TE)<br>1/PER04/140<br>1/PER05/140 (FX)<br>1/PER06/140<br>1/PER07/140 (EM)<br>1/PER08/140<br>1/PER09/140 |
| A.13  | N/A                     | N/A                                                                                                                                                                                                                                               | N/A                                                                                                                                                                                                                                                                                   |
| A.14  | Signature/Date for PI   | N/A                                                                                                                                                                                                                                               | N/A                                                                                                                                                                                                                                                                                   |
| A.15  | Signature/Date for SO   | Application date                                                                                                                                                                                                                                  | 1/BGN03/020                                                                                                                                                                                                                                                                           |
| E     | Report Period – From    | Start date for report period                                                                                                                                                                                                                      | 2/DTM01/050 (582)<br>2/DTM06/050                                                                                                                                                                                                                                                      |
| E     | Report Period – Through | Duration of report period                                                                                                                                                                                                                         | 2/DTM01/050 (582)<br>2/DTM06/050                                                                                                                                                                                                                                                      |
| E     | Report Text             | Progress report text                                                                                                                                                                                                                              | 2/N901/100 (L4)<br>2/N902/100 (I)<br>2/MTX02/110<br>2/MTX03/110                                                                                                                                                                                                                       |
| E     | Publications            | PI Publications resulting from grant<br>Publication text<br>Medline accession number                                                                                                                                                              | 2/N901/400 (L4)<br>2/N902/400 (D.5)<br>2/N902/400 (D.5.1)<br>2/MTX02/410<br>2/MTX03/410                                                                                                                                                                                               |

| Page | 2590 Item                     | Item Definition                                                                                                                                                                                                                                                                                | 194 Reference                                                                                                                                                                                                             |
|------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E    | Use of Human Subjects         | Change Since Previous Submission<br>Describe change                                                                                                                                                                                                                                            | 2/YNQ01/090 (5E)<br>2/YNQ05,6,7/090                                                                                                                                                                                       |
| E    | Use of Animals                | Change Since Previous Submission<br>Describe change                                                                                                                                                                                                                                            | 2/YNQ01/090 (6G)<br>2/YNQ05,6,7/090                                                                                                                                                                                       |
| E    | Gender and Minority Inclusion | Gender and number of members for each racial/ethnic group                                                                                                                                                                                                                                      | 2/INX/120<br>2/K301/130                                                                                                                                                                                                   |
| E    | Study Title                   | Title of study                                                                                                                                                                                                                                                                                 | 2/N901/100 (43)<br>2/MTX02/110                                                                                                                                                                                            |
| F    | Assurances/Certifications     | Human Subjects<br>Vertebrate Animals<br>Debarment and Suspension<br>Drug-Free Workplace<br>Lobbying<br>Delinquent Federal Debt<br>Research Misconduct<br>Discrimination Regulations<br>Financial Conflict of Interest<br>Response to condition<br>Explanatory text for assurance/certification | see IRB information<br>see IACUC information<br>2/YNQ01/090 (I8)<br>2/YNQ01/090 (H5)<br>2/YNQ01/090 (H0,H4)<br>2/YNQ01/090 (I7)<br>2/YNQ01/090 (H6)<br>2/YNQ01/090 (H8)<br>2/YNQ01/090 (H9)<br>2/YNQ02/090<br>2/YNQ05/090 |
| F    | Program Income                | Budget period, anticipated amount, source(s) (all provided in one text field)                                                                                                                                                                                                                  | 2/N901/100 (L4)<br>2/N902/100 (E.4)<br>2/MTX02/110<br>2/MTX03/110                                                                                                                                                         |
| F    | Indirect Costs                | DHHS regional office or other agency<br><br>Rate is current<br>DHHS agreement date                                                                                                                                                                                                             | 2/NM101/340 (K8)<br>2/NM103/340<br>2/N901/400 (AH)<br>2/N903/400 "CURRENT"<br>2/N904/400                                                                                                                                  |
| F    | Calculation                   | Entire proposed project period<br>Amount of base<br><br>Rate applied<br>Indirect Costs                                                                                                                                                                                                         | 2/PPL04/170 (T)<br>2/PD03-01/190 (P1)<br>2/PDD02/200<br>2/PD04/190<br>2/PDD03/200                                                                                                                                         |
| F    | Check Appropriate Boxes       | Check appropriate boxes<br>Salary and wages base<br>Modified total direct cost base<br>Off-site, other special rate, or more than one rate involved<br>Other base                                                                                                                              | 2/PD07/190<br>51<br>47<br>ZZ<br>08                                                                                                                                                                                        |
| F    | Explanation                   | Explanation                                                                                                                                                                                                                                                                                    | 2/N901/100 (L4)<br>2/N902/100 (E.7)<br>2/MTX02/110                                                                                                                                                                        |
| G    | Personnel Report – Name       | Personnel<br>Last name<br>First Name<br>Middle name<br>Name prefix<br>Name suffix<br>Government user ID                                                                                                                                                                                        | 2/NM101/340 (9P, 9k)<br>2/NM103/340<br>2/NM104/340<br>2/NM105/340<br>2/NM106/340<br>2/NM107/340<br>2/N901/400 (JD)<br>2/N902/400                                                                                          |

| Page | 2590 Item                                              | Item Definition                                                                              | 194 Reference                                                                               |
|------|--------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| G    | Annual % Effort                                        | Level of effort as a percent                                                                 | 2/QTY01/020 (37)<br>2/QTY02/020                                                             |
| N/A  | Question 1: Active OS                                  | Other support (OS)                                                                           | 2/HL03/010 (OS)                                                                             |
| N/A  | Status                                                 | Active Other Support                                                                         | 2/PAM01/060 (37)                                                                            |
| N/A  | Project Dates                                          | Approved OS project start date<br><br>Approved OS project end date                           | 2/PAM07/060 (193)<br>2/PAM08/060<br>2/PAM10/060 (194)<br>2/PAM11/060                        |
| N/A  | Annual Direct Costs                                    | Annual direct costs for OS project                                                           | 2/PAM04/060 (F)<br>2/PAM05/060                                                              |
| N/A  | Percent Effort                                         | Percent effort for OS project                                                                | 2/PAM13/060 (14)<br>2/PAM14/060                                                             |
| N/A  | Active Support Project Information                     | OS Project number<br><br>OS Project title                                                    | 2/N901/400 (CT)<br>2/N902/400<br>2/MTX02/410                                                |
| N/A  | Source                                                 | OS Source                                                                                    | 2/NM101/340 (92)<br>2/NM103/340                                                             |
| N/A  | Major Goals                                            | OS Major goals                                                                               | 2/N901/400 (K5)<br>2/MTX02/410                                                              |
| N/A  | Overlap                                                | OS Overlap                                                                                   | 2/N901/400 (YV)<br>2/MTX02/410                                                              |
| N/A  | Principal Investigator                                 | OS PI<br>PI last name<br>PI first name<br>PI middle name<br>PI name prefix<br>PI name suffix | 2/NM101/340 (9P)<br>2/NM103/340<br>2/NM104/340<br>2/NM105/340<br>2/NM106/340<br>2/NM107/340 |
| N/A  | Question 2: Significant rebudgeting of funds           | Explanation of significant rebudgeting of funds                                              | 2/N901/100 (L4)<br>2/N902/100 (I.7)<br>2/MTX02/110<br>2/MTX03/110                           |
| N/A  | Question 3: Change in level of effort of key personnel | Explanation of changes in level of effort of key personnel                                   | 2/N901/100 (L4)<br>2/N902/100 (C.1)<br>2/MTX02/110<br>2/MTX03/110                           |
| N/A  | Name                                                   | Government User ID of person or person's name                                                | 2/PD07/190 (01)<br>2/PD08/190                                                               |
| N/A  | Role on Project                                        | Role on project                                                                              | 2/PD07/190 (01)<br>2/PD09/190                                                               |
| N/A  | Type Appt                                              | Number of months per year reflected in an individual's appointment                           | 2/PD07/190 (01)<br>2/PDD02/200                                                              |
| N/A  | % Effort on Project                                    | New level of effort as a percent                                                             | 2/PD07/190 (01)<br>2/PDD04/200                                                              |
| N/A  | Question 4. Unobligated Balance                        | Explanation of estimated unobligated balance                                                 | 2/N901/100 (L4)<br>2/N902/100 (I.5)<br>2/MTX02/110<br>2/MTX03/110                           |

| Page | 2590 Item | Item Definition                                                                        | 194 Reference                                                   |
|------|-----------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| N/A  | Abstract  | Updated abstract                                                                       | 2/N901/100 (L4)<br>2/N902/100 (A)<br>2/MTX02/110<br>2/MTX03/110 |
| N/A  | N/A       | Identification of Federal agency<br>Cite DUNS Number for NIH<br>Use value of 927645168 | 1/NM101/090 (BY)<br>1/NM108/090 (1)<br>1/NM109/090              |

## 2.4 Applications and Profiles

Grantee organizations and users must register with NIH before being referenced on an application. Once registered, the grantee organization maintains its Organizational Profile (OPF) and each user maintains a Professional Profile (PPF). When submitting SNAP data to NIH via EDI, there are business rules that govern how information in the application affects the profiles. In general, grant application data elements:

- must match the registered profile values, or
- are stored as part of the application, but do not change the profile, or
- change the profile.

The specific business rules are described below. Note that not all the data elements listed are required to be present on an application.

### 2.4.1 Organizational Profile

With respect to the applicant organization, no organizational data submitted via the data stream affects the OPF. The following grant application data elements *must* match OPF values registered with NIH. If not, the transaction is rejected.

- Institutional Profile (IPF) code
- DUNS number
- EIN

Note that if the organization name, division or department do not match the OPF values registered with NIH, the values submitted on the application are ignored, and an email message is returned to the grantee identifying the inconsistency.

The following data elements are stored as part of the application, but do not change the OPF.

- address (street address, city, state, etc.)
- assurance and certification data

### 2.4.2 Professional Profile

NIH uses a Unique Person Algorithm (based on various PPF data elements) to uniquely identify key individuals on a grant application. If the algorithm *fails* (i.e., cannot uniquely identify an individual), the transaction is rejected. Note that failure to recognize even one key person causes the grant application to be rejected. If the algorithm succeeds (i.e., uniquely identifies an individual), PPF data elements are handled as follows.

The following grant application data elements *must* match PPF values registered with NIH. If not, the transaction is rejected.

- Government User Identifier (GUIDe)
- Social Security Number (SSN) – note that an invalid GUIDe or SSN will result in the algorithm failing. They are listed here only for completeness.

The following grant application data elements *should* match PPF values registered with NIH. If not, they are stored as part of the application (they do not change the PPF), but an email message is returned to the grantee identifying the inconsistency(ies).

- name
- date of birth

The following data elements are stored as part of the application, but do not change the user's PPF.

- position title
- address (street address, city, state, etc.)
- contact data (phone, fax, email)

Publications are handled as follows. Each publication specified in the SNAP data stream is stored as part of the application. In addition, each publication is compared to the PI's PPF registered with NIH. If the data stream publication does not match any entry in the PI's PPF, the publication is added to the PI's PPF.

## 2.5 General Processing Rules

NIH applies some general rules when processing data streams. The NIH processing rules for EDI transactions containing SNAP applications are as follows.

1. There are 194 data segments, data elements, and codes not supported by NIH. Any unsupported information included in the data stream is ignored.
2. This implementation guide restricts the length of certain data elements. If a data element exceeds an NIH length constraint, the data stream is rejected.
3. Some 194 data elements comprise multiple values (e.g., a person can have multiple position titles). For some of these data elements, NIH only permits a single value (e.g., NIH only allows a single title to be specified for a person). When this scenario



arises, only one value is stored with the application. The grantee is notified via email of which value was accepted.

4. NIH requires the following HL loops to be present in the 194 transaction set: the Project Loop (“PC”) and one iteration of the Key Person Loop (“26”) for the PI. Within these two loops, NIH requires the following information. If any of the required data are missing, the transaction is rejected.
  - Unique identification of the PI, SO, and AO.
  - Unique identification of the applicant organization
  - Unique identification of NIH as the funding agency.
  - The NIH grant number.
  - The budget period start date and length
  - The progress report.

## **2.6 ASCII Text**

When submitting SNAP data to NIH via the X12 194 transaction set, grantee organizations encode the data using the 7-bit American Standard Code for Information Interchange (ASCII) bit pattern. This encoding scheme does not permit the representation of many foreign language characters (e.g., the Å). This limitation is most apparent when specifying abstracts, project titles and publication titles containing special characters (e.g., mathematical characters). For phase two of the SNAP/EDI pilot, NIH recommends providing a brief description of the special character. For example, use *delta* in lieu of  $\delta$ , or use *small a*, *umlaut* in lieu of  $\ddot{a}$ .

### 3 194 Transaction Set

The X12 194 transaction set is used by grantee organizations (or their agents) to submit SNAP data to NIH. A single transmission of this transaction set shall be used to submit a single SNAP application.

#### Heading:

|               | <u>Pos No</u> | <u>Seg ID</u> | <u>Name</u>                           | <u>Req Des</u> | <u>Max Use</u> | <u>Repeat</u> |
|---------------|---------------|---------------|---------------------------------------|----------------|----------------|---------------|
| R             | 010           | ST            | Transaction Set Header                | M              | 1              |               |
| R             | 020           | BGN           | Beginning Segment                     | M              | 1              |               |
| N/U           | 030           | DTM           | Date/Time Reference                   | O              | >1             |               |
| N/U           | 040           | LDT           | Lead Time                             | O              | >1             |               |
| N/U           | 050           | PWK           | Paperwork                             | O              | >1             |               |
| LOOP ID – N9  |               |               |                                       |                |                | >1            |
| O             | 060           | N9            | Reference Number                      | O              | 1              |               |
| N/U           | 070           | L11           | Business Instructions                 | O              | >1             |               |
| O             | 080           | MTX           | Text                                  | O              | >1             |               |
| LOOP ID – NM1 |               |               |                                       |                |                | >1            |
| R             | 090           | NM1           | Individual or Organizational Name     | O              | 1              |               |
| O             | 100           | N2            | Additional Name Information           | O              | 1              |               |
| O             | 110           | N3            | Address Information                   | O              | 2              |               |
| O             | 120           | N4            | Geographic Location                   | O              | 1              |               |
| O             | 130           | N9            | Reference Number                      | O              | >1             |               |
| O             | 140           | PER           | Administrative Communications Contact | O              | >1             |               |

**Detail:**

|     | <u>Pos No</u> | <u>Seg ID</u> | <u>Name</u>                       | <u>Req Des</u> | <u>Max Use</u> | <u>Repeat</u> |
|-----|---------------|---------------|-----------------------------------|----------------|----------------|---------------|
|     |               |               | LOOP ID – HL                      |                |                | >1            |
| R   | 010           | HL            | Hierarchical Level                | M              | 1              |               |
| O   | 020           | QTY           | Quantity                          | O              | >1             |               |
| N/U | 030           | AMT           | Monetary Amount                   | O              | >1             |               |
| O   | 050           | DTM           | Date/Time Reference               | O              | >1             |               |
| O   | 060           | PAM           | Period Amount                     | O              | >1             |               |
| N/U | 070           | HSD           | Health Care Services Delivery     | O              | >1             |               |
| N/U | 080           | NX1           | Property or Entity Identification | O              | >1             |               |
| O   | 090           | YNQ           | Yes/No Question                   | O              | >1             |               |
|     |               |               | LOOP ID - N9                      |                |                | >1            |
| O   | 100           | N9            | Reference Number                  | O              | 1              |               |
| N/U | 105           | L11           | Business Instructions             | O              | >1             |               |
| O   | 110           | MTX           | Text                              | O              | >1             |               |
|     |               |               | LOOP ID – INX                     |                |                | >1            |
| O   | 120           | INX           | Index Detail                      | O              | 1              |               |
| O   | 130           | K3            | File Information                  | M              | >1             |               |
|     |               |               | LOOP ID - PO1                     |                |                | >1            |
| N/U | 140           | PO1           | Baseline Item Data                | O              | 1              |               |
| N/U | 160           | MTX           | Text                              | O              | >1             |               |
|     |               |               | LOOP ID – PPL                     |                |                | >1            |
| O   | 170           | PPL           | Price Support Data                | O              | 1              |               |
| N/U | 180           | REF           | Reference Identification          | O              | >1             |               |
|     |               |               | LOOP ID – PD                      |                |                | >1            |
| O   | 190           | PD            | Pricing Data                      | O              | 1              |               |
| O   | 200           | PDD           | Pricing Data Detail               | O              | >1             |               |
|     |               |               | LOOP ID – PL                      |                |                | >1            |
| N/U | 210           | PL            | Proposal Cost Logic               | O              | 1              |               |
| N/U | 220           | REF           | Reference Identification          | O              | >1             |               |
| N/U | 230           | AMT           | Monetary Amount                   | O              | 1              |               |
| N/U | 240           | PCT           | Percent Amounts                   | O              | 1              |               |
| N/U | 250           | QTY           | Quantity                          | O              | 1              |               |
| N/U | 260           | NTE           | Note/Special Instruction          | O              | >1             |               |
|     |               |               | LOOP ID – PD                      |                |                | >1            |
| N/U | 270           | PD            | Pricing Data                      | O              | 1              |               |
| N/U | 280           | SPI           | Specification Identifier          | O              | 1              |               |
| N/U | 290           | REF           | Reference Identification          | O              | >1             |               |
| N/U | 300           | PDD           | Pricing Data Detail               | O              | >1             |               |
| N/U | 310           | MTX           | Text                              | O              | >1             |               |
| N/U | 320           | DTM           | Date/Time Reference               | O              | 10             |               |

|     |     |     |                                       |   |              |
|-----|-----|-----|---------------------------------------|---|--------------|
|     |     |     | <b>LOOP ID – LX</b>                   |   | <b>&gt;1</b> |
| O   | 330 | LX  | Assigned Number                       | O | 1            |
| O   | 340 | NM1 | Individual or Organizational Name     | O | 1            |
| O   | 350 | N2  | Additional Name Information           | O | 1            |
| O   | 360 | N3  | Address Information                   | O | 2            |
| O   | 370 | N4  | Geographic Location                   | O | 1            |
| O   | 375 | PER | Administrative Communications Contact | O | >1           |
| O   | 380 | DMG | Demographic Information               | O | >1           |
| O   | 390 | EMS | Employment Position                   | O | 1            |
|     |     |     | <b>LOOP ID - N9</b>                   |   | <b>&gt;1</b> |
| O   | 400 | N9  | Reference Identification              | O | 1            |
| N/U | 405 | L11 | Business Instructions                 | O | >1           |
| O   | 410 | MTX | Text                                  | O | >1           |
|     |     |     | <b>LOOP ID – DEG</b>                  |   | <b>&gt;1</b> |
| N/U | 420 | DEG | Degree Record                         | O | 1            |
| N/U | 430 | FOS | Field of Study                        | O | >1           |
| N/U | 440 | N1  | Name                                  | O | >1           |
|     |     |     | <b>LOOP ID - K2</b>                   |   | <b>&gt;1</b> |
| N/U | 450 | K2  | Administrative Message                | O | 1            |
| N/U | 460 | N9  | Reference Identification              | O | >1           |
| N/U | 470 | NM1 | Individual or Organizational Name     | O | >1           |
| R   | 480 | SE  | Transaction Set Trailer               | M | 1            |

### 3.1 ST Segment (1/010)

**Table / Position:** 1 / 010

**Purpose:** To indicate the start of a transaction set and to assign a control number.

| Usage | Ref. Des. | Data Elmt | Name                                                                             | Attributes |
|-------|-----------|-----------|----------------------------------------------------------------------------------|------------|
| R     | ST01      | 143       | Transaction Set Identifier Code<br>“194” X12.372 Grant or Assistance Application | M ID 3/3   |
| R     | ST02      | 329       | Transaction Set Control Number                                                   | M AN 4/9   |

### 3.2 BGN Segment (1/020)

**Table / Position:** 1 / 020

**Purpose:** To indicate the beginning of a transaction set.

| Usage | Ref. Des. | Data Elmt | Name                                                  | Attributes |
|-------|-----------|-----------|-------------------------------------------------------|------------|
| R     | BGN01     | 353       | Transaction Set Purpose Code<br>“00” Original         | M ID 2/2   |
| R     | BGN02     | 127       | Reference Identification                              | M AN 1/30  |
| R     | BGN03     | 373       | Date                                                  | M DT 8/8   |
| R     | BGN04     | 337       | Time                                                  | X TM 4/8   |
| O     | BGN05     | 623       | Time Code<br>“LT” Local Time                          | O ID 2/2   |
| O     | BGN06     | 127       | Reference Identification                              | O ID 1/30  |
| R     | BGN07     | 640       | Transaction Type Code<br>“6N” Non-competitive Renewal | O ID 2/2   |
| N/U   | BGN08     | 306       | Action Code                                           | O ID 1/2   |
| N/U   | BGN09     | 786       | Security Level Code                                   | O ID 2/2   |

### 3.3 N9 Segment (1/060)

**Table / Position:** 1 / 060

**Purpose:** To transmit identifying numbers and descriptive information as specified by the reference number qualifier.

| Usage | Ref. Des. | Data Elmt | Name                                                                     | Attributes |
|-------|-----------|-----------|--------------------------------------------------------------------------|------------|
| R     | N901      | 128       | Reference Identification Qualifier<br>“4W” Study<br>“CT” Contract Number | M ID 2/3   |
| O     | N902      | 127       | Reference Identification                                                 | X AN 1/30  |
| O     | N903      | 369       | Free-form Description                                                    | X AN 1/45  |
| N/U   | N904      | 373       | Date                                                                     | O DT 8/8   |
| N/U   | N905      | 337       | Time                                                                     | X TM 4/8   |
| N/U   | N906      | 623       | Time Code                                                                | O ID 2/2   |
| N/U   | N907      | C040      | Reference Identifier                                                     | O          |

### 3.4 MTX Segment (1/080)

**Table / Position:** 1 / 080

**Purpose:** To specify textual data.

| Usage | Ref. Des. | Data Elmt | Name                                                                             | Attributes  |
|-------|-----------|-----------|----------------------------------------------------------------------------------|-------------|
| N/U   | MTX01     | 363       | Note Reference Code                                                              | O ID 3/3    |
| R     | MTX02     | 1551      | Message Text<br><i>Maximum length for an NIH project title is 81 characters.</i> | X AN 1/4096 |
| N/U   | MTX03     | 1551      | Message Text                                                                     | O AN 1/4096 |
| N/U   | MTX04     | 934       | Printer Carriage Control Code                                                    | O ID 2/2    |

### 3.5 NM1 Segment (1/090)

**Table / Position:** 1 / 090

**Purpose:** To supply the full name of an individual or organizational entity.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                             | Attributes |
|-------|-----------|-----------|----------------------------------------------------------------------------------------------------------------------------------|------------|
| R     | NM101     | 98        | Entity Identifier Code<br>“1B” Applicant<br>“AD” Party to be advised<br>“BY” Buying Party<br>“FA” Facility<br>“SE” Selling Party | M ID 2/3   |
| R     | NM102     | 1065      | Entity Type Qualifier<br>“1” Person<br>“2” Non-person Entity                                                                     | M ID 1/1   |
| O     | NM103     | 1035      | Name Last or Organization Name<br><i>Maximum length for last name is 30 characters.</i>                                          | O AN 1/35  |
| O     | NM104     | 1036      | Name First                                                                                                                       | O AN 1/25  |
| O     | NM105     | 1037      | Name Middle                                                                                                                      | O AN 1/25  |
| O     | NM106     | 1038      | Name Prefix                                                                                                                      | O AN 1/10  |
| O     | NM107     | 1039      | Name Suffix<br><i>Maximum length for name suffix is 5 characters.</i>                                                            | O AN 1/10  |
| C     | NM108     | 66        | Identification Code Qualifier<br>“1” DUNS Number, Dun & Bradstreet<br>“9” DUNS+4, DUNS Number with Four Character Suffix         | X ID 1/2   |
| C     | NM109     | 67        | Identification Code                                                                                                              | X AN 2/80  |
| O     | NM110     | 706       | Entity Relationship Code                                                                                                         | X ID 2/2   |
| O     | NM111     | 98        | Entity Identifier Code                                                                                                           | O ID 2/3   |

### 3.6 N2 Segment (1/100)

**Table / Position:** 1 / 100

**Purpose:** To specify additional names or names longer than 35 characters in length.

**Notes:** 1. Only one occurrence of this data segment is permitted per iteration of the NM1 loop.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                                                                           | Attributes |
|-------|-----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| R     | N201      | 93        | Name<br><i>Use with NM103 to specify organization name that is longer than 35 characters. NIH will append N201 to NM103. Maximum length for NM103 + N201 is 40 characters.</i> | M AN 1/60  |
| N/U   | N202      | 93        | Name                                                                                                                                                                           | O AN 1/60  |

### 3.7 N3 Segment (1/110)

**Table / Position:** 1 / 110

**Purpose:** To specify the location of the named party.

| Usage | Ref. Des. | ID  | Name                                                                               | Attributes |
|-------|-----------|-----|------------------------------------------------------------------------------------|------------|
| R     | N301      | 166 | Address Information<br><i>Maximum length for an address line is 50 characters.</i> | M AN 1/55  |
| O     | N302      | 166 | Address Information<br><i>Maximum length for an address line is 50 characters.</i> | O AN 1/55  |

### 3.8 N4 Segment (1/120)

**Table / Position:** 1 / 120

**Purpose:** To specify the geographic location of the named party.

| Usage | Ref. Des. | Data Elmt | Name                                                                  | Attributes |
|-------|-----------|-----------|-----------------------------------------------------------------------|------------|
| O     | N401      | 19        | City Name                                                             | O AN 2/30  |
| O     | N402      | 156       | State or Province Code                                                | O ID 2/2   |
| O     | N403      | 116       | Postal Code<br><i>Maximum length for postal code is 9 characters.</i> | O ID 3/15  |
| O     | N404      | 26        | Country Code                                                          | O ID 2/3   |
| O     | N405      | 309       | Location Qualifier<br>"CY" County/Parish                              | X ID 1/2   |
| O     | N406      | 310       | Location Identifier                                                   | O AN 1/30  |



### 3.9 N9 Segment (1/130)

**Table / Position:** 1 / 130

**Purpose:** To transmit identifying numbers and descriptive information as specified by the reference number qualifier.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                                                                | Attributes |
|-------|-----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| R     | N901      | 128       | Reference Identification Qualifier<br>“CR” Customer Reference Number.<br>“EI” Employer’s Identification Number.<br>“JD” User Identification.<br>“P5” Position Code. | M ID 2/3   |
| O     | N902      | 127       | Reference Identification                                                                                                                                            | X AN 1/30  |
| O     | N903      | 369       | Free-form Description<br><i>Maximum length of a position title is 40 characters.</i>                                                                                | X AN 1/45  |
| N/U   | N904      | 373       | Date                                                                                                                                                                | O DT 8/8   |
| N/U   | N905      | 337       | Time                                                                                                                                                                | X TM 4/8   |
| N/U   | N906      | 623       | Time Code                                                                                                                                                           | O ID 2/2   |
| N/U   | N907      | C040      | Reference Identifier                                                                                                                                                | O          |

### 3.10 PER Segment (1/140)

**Table / Position:** 1 / 140

**Purpose:** To identify a person or office to which administrative communications should be directed.

| Usage | Ref. Des. | Data Elmt | Name                                                                                 | Attributes |
|-------|-----------|-----------|--------------------------------------------------------------------------------------|------------|
| R     | PER01     | 366       | Contact Function Code<br>“IC” Information Contact.                                   | M ID 2/2   |
| O     | PER02     | 93        | Name                                                                                 | O AN 1/60  |
| R     | PER03     | 365       | Communication Number Qualifier<br>“TE” Telephone                                     | X ID 2/2   |
| R     | PER04     | 364       | Communication Number<br><i>Maximum length for telephone number is 25 characters.</i> | X AN 1/80  |
| C     | PER05     | 365       | Communication Number Qualifier<br>“FX” Facsimile                                     | X ID 2/2   |
| C     | PER06     | 364       | Communication Number<br><i>Maximum length for facsimile number is 25 characters.</i> | X AN 1/80  |
| C     | PER07     | 365       | Communication Number Qualifier<br>“EM” Electronic Mail                               | X ID 2/2   |
| C     | PER08     | 364       | Communication Number                                                                 | X AN 1/80  |
| O     | PER09     | 443       | Contact Inquiry Reference                                                            | O AN 1/20  |

### 3.11 HL Segment (2/010)

**Table / Position:** 2 / 010

**Purpose:** To identify dependencies among the content of hierarchically related groups of data segments.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                   | Attributes |
|-------|-----------|-----------|--------------------------------------------------------------------------------------------------------|------------|
| R     | HL01      | 628       | Hierarchical ID Number                                                                                 | M AN 1/12  |
| O     | HL02      | 734       | Hierarchical Parent ID Number                                                                          | O AN 1/12  |
| R     | HL03      | 735       | Hierarchical Level Code<br>“26” Member<br>“OS” Other Support<br>“PC” Project Code                      | M ID 1/2   |
| O     | HL04      | 736       | Hierarchical Child Code<br>“0” No Subordinate HL Segment<br>“1” Additional Subordinate HL Data Segment | O ID 1/1   |

### 3.12 QTY Segment (2/020)

**Table / Position:** 2 / 020

**Purpose:** To specify quantity information.

| Usage | Ref. Des. | Data Elmt | Name                                       | Attributes |
|-------|-----------|-----------|--------------------------------------------|------------|
| R     | QTY01     | 673       | Quantity Qualifier<br>“37” Work In Process | M ID 2/2   |
| R     | QTY02     | 380       | Quantity                                   | X R 1/15   |
| N/U   | QTY03     | C001      | Composite Unit of Measure                  | O          |
| N/U   | QTY04     | 61        | Free-Form Message                          | X AN 1/30  |

### 3.13 DTM Segment (2/050)

**Table / Position:** 2 / 050

**Purpose:** To specify pertinent dates and times.

| Usage | Ref. Des. | Data Elmt | Name                                                                                    | Attributes |
|-------|-----------|-----------|-----------------------------------------------------------------------------------------|------------|
| R     | DTM01     | 374       | Date/Time Qualifier<br>“193” Period Start.<br>“194” Period End.<br>“582” Report Period. | M ID 3/3   |
| C     | DTM02     | 373       | Date                                                                                    | X DT 8/8   |
| N/U   | DTM03     | 337       | Time                                                                                    | X TM 4/8   |
| N/U   | DTM04     | 623       | Time Code                                                                               | O ID 2/2   |
| C     | DTM05     | 1250      | Date Time Period Format Qualifier<br>“RD8” CCYYMMDD-CCYYMMDD Format.                    | X ID 2/3   |
| C     | DTM06     | 1251      | Date Time Period                                                                        | X AN 1/35  |

### 3.14 PAM Segment (2/060)

**Table / Position:** 2 / 060

**Purpose:** To indicate a quantity and/or amount for an identified period.

| Usage | Ref. Des. | Data Elmt | Name                                                                     | Attributes |
|-------|-----------|-----------|--------------------------------------------------------------------------|------------|
| R     | PAM01     | 673       | Quantity Qualifier<br>“37” Work In Progress<br>“A3” Most Likely Duration | X ID 2/2   |
| R     | PAM02     | 380       | Quantity                                                                 | X R 1/15   |
| R     | PAM03     | C001      | Composite Unit of Measure                                                | X          |
| R     | C00101    | 355       | Unit or Basis for Measurement Code<br>“MO” Months                        | M ID 2/2   |
| C     | PAM04     | 522       | Amount Qualifier Code<br>“F” Annual Limit.                               | X ID 1/3   |
| C     | PAM05     | 782       | Monetary Amount                                                          | X R 1/18   |
| C     | PAM06     | 344       | Unit of Time Period or Interval<br>“CC” Cycles                           | X ID 2/2   |
| C     | PAM07     | 374       | Date/Time Qualifier<br>“193” Period Start                                | X ID 3/3   |
| C     | PAM08     | 373       | Date                                                                     | X DT 8/8   |
| N/U   | PAM09     | 337       | Time                                                                     | X TM 4/8   |
| C     | PAM10     | 374       | Date/Time Qualifier<br>“194” Period End                                  | X ID 3/3   |
| C     | PAM11     | 373       | Date                                                                     | X DT 8/8   |
| N/U   | PAM12     | 337       | Time                                                                     | X TM 4/8   |
| C     | PAM13     | 1004      | Percent Qualifier<br>“14” Availability Factor                            | X ID 1/2   |
| C     | PAM14     | 954       | Percent                                                                  | X R 1/10   |
| N/U   | PAM15     | 1073      | Yes/No Condition or Response Code                                        | O ID 1/1   |

### 3.15 YNQ Segment (2/090)

**Table / Position:** 2 / 090

**Purpose:** To identify and answer yes and no questions, including the date, time, and comments further qualifying the condition.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Attributes |
|-------|-----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| R     | YNQ01     | 1321      | Condition Indicator<br>“5E” Medical Treatment<br>“6G” Work Status<br>“H0” Organization Certifies Compliance With Federal Lobbying Regulations<br>“H4” Lobbying Activities Have Been Conducted Regarding the Proposal<br>“H5” Organization Certifies Compliance With the Drug-Free Workplace Act<br>“H6” Organization Certifies Compliance With the Code of Federal Regulations Regarding Research Misconduct<br>“H8” Organization Certifies Compliance With Federal Discrimination Regulations<br>“H9” Organization Certifies Compliance With the Code of Federal Regulations Regarding Responsibility of Applicants for Promoting Objectivity in Research for which Public Health Service (PHS) Funding is Sought<br>“I7” Organization has Delinquent Federal Debts<br>“I8” Organization Has Been Placed on the Federal Debarment and Suspension List | X ID 2/2   |
| R     | YNQ02     | 1073      | Yes/No Condition or Response Code<br>“N” No<br>“Y” Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | M ID 1/1   |
| N/U   | YNQ03     | 1250      | Date Time Period Format Qualifier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | X ID 2/3   |
| N/U   | YNQ04     | 1251      | Date Time Period                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | X AN 1/35  |
| O     | YNQ05     | 933       | Free-Form Message Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | O AN 1/264 |
| O     | YNQ06     | 933       | Free-Form Message Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | O AN 1/264 |
| O     | YNQ07     | 933       | Free-Form Message Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | O AN 1/264 |
| N/U   | YNQ08     | 1270      | Code List Qualifier Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | X ID 1/3   |
| N/U   | YNQ09     | 1271      | Industry Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | X AN 1/30  |
| N/U   | YNQ10     | 933       | Free-Form Message Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | X AN 1/264 |

### 3.16 N9 Reference Number (2/100)

**Table / Position:** 2 / 100

**Purpose:** To transmit identifying numbers and descriptive information as specified by the reference number qualifier.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Attributes |
|-------|-----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| R     | N901      | 128       | Reference Identification Qualifier<br>“43” Supporting Document Number.<br>“F4” Facility Certification Number.<br>“L4” Proposal Paragraph Number.<br>“WI” Waiver.<br>“Y9” Current Certificate Number.                                                                                                                                                                                                                                                                                                                                                                                                            | M ID 2/3   |
| R     | N902      | 127       | Reference Identification<br>“A” Abstract<br>“C.1” Personnel & Budget Justification<br><i>Use to explain changes in level of effort of key personnel.</i><br>“E.4” Project Related Income<br>“E.7” Indirect Cost Base<br>“I” Progress Report<br>“I.5” Significant Unobligated Balances<br>“I.6” Inventions<br><i>Use to indicate that one or more inventions were conceived under this project. Cite the words REPORTED or NOT REPORTED in 2/MTX02/110 to indicate whether the inventions were previously reported.</i><br>“I.7” Expenditures To-Date<br><i>Use to explain significant rebudgeting of funds.</i> | X AN 1/30  |
| O     | N903      | 369       | Free-form Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | X AN 1/45  |
| O     | N904      | 373       | Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | O DT 8/8   |
| N/U   | N905      | 337       | Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | X TM 4/8   |
| N/U   | N906      | 623       | Time Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | O ID 2/2   |
| N/U   | N907      | C040      | Reference Identification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | O          |

### 3.17 MTX Segment (2/110)

**Table / Position:** 2 / 110

**Purpose:** To specify textual data.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Attributes  |
|-------|-----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| N/U   | MTX01     | 363       | Note Reference Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | O ID 3/3    |
| R     | MTX02     | 1551      | Message Text<br><i>Maximum length for Gender and Minority Inclusion title is 60 characters.</i><br><br><i>Maximum length for an abstract is 4M.</i><br><br><i>Maximum length for a publication is 2K.</i><br><br><i>Maximum length for the budget justification is 2K.</i><br><br><i>Maximum length for the program income explanation is 100 characters.</i><br><br><i>Maximum length for indirect cost base explanation is 4M.</i><br><br><i>Maximum length for the progress report text is 4M.</i><br><br><i>Maximum length for the estimated unobligated balance explanation is 2K.</i> | X AN 1/4096 |
| O     | MTX03     | 1551      | Message Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | O AN 1/4096 |
| N/U   | MTX04     | 934       | Printer Carriage Control Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | O ID 2/2    |

### 3.18 INX Segment (2/120)

**Table / Position:** 2 / 120

**Purpose:** To specify an index.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                                                                                                                                                                 | Attributes |
|-------|-----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| R     | INX01     | 1550      | Index Qualifier<br>"1" Matrix Start – Absolute Reference                                                                                                                                                                                                             | M ID 1/2   |
| R     | INX02     | C036      | Index Identification                                                                                                                                                                                                                                                 | M          |
| O     | C03601    | 1395      | Configuration Type Code<br>"1" Horizontal, Left to Right<br><br><i>Construct the Gender and Minority Inclusion matrix as follows:<br/>Rows: 1 (Male), 2 (Female), 3 (Unknown)<br/>Cols: A (Indian), B (Asian), C (Black), D (Hispanic),<br/>E (White), F (Other)</i> | O ID 1/1   |
| N/U   | C03602    | 127       | Reference Identification                                                                                                                                                                                                                                             | X AN 1/30  |
| N/U   | C03603    | 127       | Reference Identification                                                                                                                                                                                                                                             | X AN 1/30  |
| N/U   | C03604    | 863       | X-Peg                                                                                                                                                                                                                                                                | X R 1/6    |
| N/U   | C03605    | 864       | Y-Peg                                                                                                                                                                                                                                                                | X R 1/6    |

### 3.19 K3 Segment (2/130)

**Table / Position:** 2 / 130

**Purpose:** To transmit fixed-format record or matrix contents.

| Usage | Ref. Des. | Data Elmt | Name                               | Attributes |
|-------|-----------|-----------|------------------------------------|------------|
| R     | K301      | 449       | Fixed Format Information           | M AN 1/80  |
| N/U   | K302      | 1333      | Record Format Code                 | O ID 1/2   |
| N/U   | K303      | C001      | Unit or Basis for Measurement Code | O          |



### 3.20 PPL Segment (2/170)

**Table / Position:** 2 / 170

**Purpose:** To provide information about pricing support.

| Usage | Ref. Des. | Data Elmt | Name                                 | Attributes |
|-------|-----------|-----------|--------------------------------------|------------|
| N/U   | PPL01     | 1309      | Acquisition Data Code                | O ID 2/2   |
| N/U   | PPL02     | 373       | Date                                 | O DT 8/8   |
| N/U   | PPL03     | 373       | Date                                 | O DT 8/8   |
| O     | PPL04     | 352       | Description                          | O AN 1/80  |
| N/U   | PPL05     | 1401      | Proposal Data Detail Identifier Code | O ID 1/3   |

### 3.21 PD Segment (2/190)

**Table / Position:** 2 / 190

**Purpose:** To describe the pricing basic input detail.

1. For individuals with different percentages over different periods (e.g., different level of effort for academic period versus summer period), use only one iteration of the PD loop and average the percentages for the individual.

2. All people specified for an application must be identified in the budget.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                                                                                             | Attributes |
|-------|-----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| R     | PD01      | 344       | Unit of Time Period or Interval<br>“CC” Cycles                                                                                                                                                   | M ID 2/2   |
| R     | PD02      | 373       | Date                                                                                                                                                                                             | M DT 8/8   |
| R     | PD03      | C001      | Composite Unit of Measure                                                                                                                                                                        | M          |
| R     | C00101    | 355       | Unit or Basis for Measurement Code<br>“DO” Dollars, U.S.<br>“PI” Percent                                                                                                                         | M ID 2/2   |
| O     | C00104    | 355       | Unit or Basis for Measurement Code<br>“8S” Session                                                                                                                                               | O ID 2/2   |
| R     | PD04      | 380       | Quantity                                                                                                                                                                                         | M R 1/15   |
| O     | PD05      | 93        | Name                                                                                                                                                                                             | M AN 1/60  |
| O     | PD06      | 352       | Description                                                                                                                                                                                      | O AN 1/80  |
| O     | PD07      | 1196      | Breakdown Structure Detail Code<br>“01” Labor<br>“08” Other Overhead<br>“38” Total Cost Plus General & Administrative<br>“47” Total Direct Cost Base<br>“51” Employment<br>“ZZ” Mutually Defined | O ID 2/2   |

|     |      |      |                                                                                                                                                                       |           |
|-----|------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| O   | PD08 | 127  | Reference Identification<br><i>For a named individual, use the syntax:<br/>LastName, FirstName, MiddleName</i>                                                        | O AN 1/30 |
| O   | PD09 | 352  | Description<br><i>NIH recognizes the following project roles: Principal Investigator, Research Assistant, Staff Scientist, Fellow, Lab Technician, and Supportee.</i> | O AN 1/80 |
| N/U | PD10 | 1401 | Proposed Data Detail Identifier Code                                                                                                                                  | O ID 1/3  |

### 3.22 PDD Segment (2/200)

**Table / Position:** 2 / 200

**Purpose:** To provide the rates, direct input, and pricing factors for each element of work, cross-referenced to an applicable request or submission.

| Usage | Ref. Des. | Data Elmt | Name                                                                                           | Attributes |
|-------|-----------|-----------|------------------------------------------------------------------------------------------------|------------|
| R     | PDD01     | 350       | Assignment Identification                                                                      | M AN 1/20  |
| O     | PDD02     | 380       | Quantity                                                                                       | X R 1/15   |
| O     | PDD03     | 782       | Monetary Amount<br><i>Monetary amounts must be an integer value of no more than 10 digits.</i> | X R 1/18   |
| O     | PDD04     | 954       | Percent                                                                                        | X R 1/10   |
| N/U   | PDD05     | 1401      | Proposal Data Detail Identifier Code                                                           | O ID 1/3   |

### 3.23 LX Segment (2/330)

**Table / Position:** 2 / 330

**Purpose:** To reference a line number in a transaction set.

| Usage | Ref. Des. | Data Elmt | Name            | Attributes |
|-------|-----------|-----------|-----------------|------------|
| R     | LX01      | 554       | Assigned Number | M NO 1/6   |

### 3.24 NM1 Segment (2/340)

**Table / Position:** 2 / 340

**Purpose:** To supply the full name of an individual or organizational entity.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Attributes |
|-------|-----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| R     | NM101     | 98        | Entity Identifier Code<br>“61” Performed At.<br>“92” Support Party.<br>“9K” Key Person.<br><i>All key personnel must be registered with NIH.</i><br>“9P” Investigator.<br>“K8” Filing Location.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | M ID 2/3   |
| R     | NM102     | 1065      | Entity Type Qualifier<br>“1” Person.<br>“2” Non-person Entity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | M ID 1/1   |
| O     | NM103     | 1035      | Name Last or Organization Name<br><i>Maximum length for last name is 30 characters</i><br><br><i>When specifying the Other Support PI name, the total characters comprising NM103 through NM107 must be no more than 60 characters.</i><br><br><i>When specifying the DHHS Regional office at which an indirect cost rate has been negotiated, use the following codes:</i><br>“NE” Northeastern Office, New York, NY<br>“MID” Mid-Atlantic Office, Washington, DC<br>“CEN” Central States Office, Dallas, TX<br>“WES” Western States Office, San Francisco, CA<br><i>If an indirect cost rate has been negotiated at a different agency’s cost advisory office, cite the name of the office.</i> | O AN 1/35  |
| O     | NM104     | 1036      | Name First                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | O AN 1/25  |
| O     | NM105     | 1037      | Name Middle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | O AN 1/25  |
| O     | NM106     | 1038      | Name Prefix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | O AN 1/10  |
| O     | NM107     | 1039      | Name Suffix<br><i>Maximum length for name suffix is 5 characters.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | O AN 1/10  |
| N/U   | NM108     | 66        | Identification Code Qualifier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | X ID 1/2   |
| N/U   | NM109     | 67        | Identification Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | X AN 2/80  |
| N/U   | NM110     | 706       | Entity Relationship Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | X ID 2/2   |
| N/U   | NM11      | 98        | Entity Identifier Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | O ID 2/3   |

### 3.25 N2 Segment (2/350)

**Table / Position:** 2 / 350

**Purpose:** To specify additional names or names longer than 35 characters in length.

**Notes:** 1. Only one occurrence of this data segment is permitted per iteration of the LX loop.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                                                                           | Attributes |
|-------|-----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| R     | N201      | 93        | Name<br><i>Use with NM103 to specify organization name that is longer than 35 characters. NIH will append N301 to NM103. Maximum length for NM103 + N201 is 40 characters.</i> | M AN 1/60  |
| N/U   | N202      | 93        | Name                                                                                                                                                                           | O AN 1/60  |

### 3.26 N3 Segment (2/360)

**Table / Position:** 2 / 360

**Purpose:** To specify the location of the named party.

| Usage | Ref. Des. | Data Elmt | Name                                                                               | Attributes |
|-------|-----------|-----------|------------------------------------------------------------------------------------|------------|
| R     | N301      | 166       | Address Information<br><i>Maximum length for an address line is 50 characters.</i> | M AN 1/55  |
| O     | N302      | 166       | Address Information<br><i>Maximum length for an address line is 50 characters.</i> | O AN 1/55  |

### 3.27 N4 Segment (2/370)

**Table / Position:** 2 / 370

**Purpose:** To specify the geographic location of the named party.

| Usage | Ref. Des. | Data Elmt | Name                                                                  | Attributes |
|-------|-----------|-----------|-----------------------------------------------------------------------|------------|
| O     | N401      | 19        | City Name                                                             | O AN 2/30  |
| O     | N402      | 156       | State or Province Code                                                | O ID 2/2   |
| O     | N403      | 116       | Postal Code<br><i>Maximum length for Postal Code is 9 characters.</i> | O ID 3/15  |
| O     | N404      | 26        | Country Code                                                          | O ID 2/3   |
| O     | N405      | 309       | Location Qualifier<br>"CY" County/Parish                              | X ID 1/2   |
| O     | N406      | 310       | Location Identifier                                                   | O AN 1/30  |

### 3.28 PER Segment (2/375)

**Table / Position:** 2 / 375

**Purpose:** To identify a person or office to which administrative communications should be directed.

| Usage | Ref. Des. | Data Elmt | Name                                                                                 | Attributes |
|-------|-----------|-----------|--------------------------------------------------------------------------------------|------------|
| R     | PER01     | 366       | Contact Function Code<br>“IC” Information Contact.                                   | M ID 2/2   |
| O     | PER02     | 93        | Name                                                                                 | O AN 1/60  |
| R     | PER03     | 365       | Communication Number Qualifier<br>“TE” Telephone                                     | X ID 2/2   |
| R     | PER04     | 364       | Communication Number<br><i>Maximum length for telephone number is 25 characters.</i> | X AN 1/80  |
| C     | PER05     | 365       | Communication Number Qualifier<br>“FX” Facsimile                                     | X ID 2/2   |
| C     | PER06     | 364       | Communication Number<br><i>Maximum length for facsimile number is 25 characters.</i> | X AN 1/80  |
| C     | PER07     | 365       | Communication Number Qualifier<br>“EM” Electronic Mail                               | X ID 2/2   |
| C     | PER08     | 364       | Communication Number                                                                 | X AN 1/80  |
| O     | PER09     | 443       | Contact Inquiry Reference                                                            | O AN 1/20  |

### 3.30 DMG Segment (2/390)

**Table / Position:** 2 / 390

**Purpose:** To describe employment position.

| Usage | Ref. Des. | Data Elmt | Name                              | Attributes |
|-------|-----------|-----------|-----------------------------------|------------|
| N/U   | DMG01     | 1250      | Date Time Period Format Qualifier | X ID 2/3   |
| O     | DMG02     | 1251      | Date Time Period                  | X AN 1/35  |
| N/U   | DMG03     | 1068      | Gender Code                       | O ID 1/1   |
| N/U   | DMG04     | 1067      | Marital Status Code               | O ID 1/1   |
| N/U   | DMG05     | 1109      | Race or Ethnicity Code            | O ID 1/1   |
| N/U   | DMG06     | 1066      | Citizenship Status Code           | O ID 1/2   |
| N/U   | DMG07     | 26        | Country Code                      | O ID 2/3   |
| N/U   | DMG08     | 659       | Basis of Verification Code        | O ID 1/2   |
| N/U   | DMG09     | 380       | Quantity                          | O R 1/15   |

### 3.31 EMS Segment (2/390)

**Table / Position:** 2 / 390

**Purpose:** To describe employment position.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                                          | Attributes |
|-------|-----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------|
| R     | EMS01     | 352       | Description<br><i>NIH recognizes the following project roles: Research Assistant, Staff Scientist, Fellow, Lab Technician, and Supportee.</i> | O AN 1/80  |
| N/U   | EMS02     | 1176      | Employment Class Code                                                                                                                         | O ID 2/3   |
| N/U   | EMS03     | 1149      | Occupation Code                                                                                                                               | O ID 4/6   |
| N/U   | EMS04     | 584       | Employment Status Code                                                                                                                        | O ID 2/2   |
| N/U   | EMS05     | 128       | Reference Identification Qualifier                                                                                                            | X ID 2/3   |
| N/U   | EMS06     | 127       | Reference Identification                                                                                                                      | X AN 1/30  |
| N/U   | EMS07     | 127       | Reference Identification                                                                                                                      | O AN 1/30  |

### 3.32 N9 Segment (2/400)

**Table / Position:** 2 / 400

**Purpose:** To transmit identifying numbers and descriptive information as specified by the reference number qualifier.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                                                                                                                                                                                                                                                         | Attributes |
|-------|-----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| R     | N901      | 128       | Reference Number Qualifier<br>“19” Division Identifier.<br>“AH” Agreement Number.<br>“CT” Contract Number.<br>“JD” User Identification.<br>“K5” Task Order.<br>“L4” Proposal Paragraph Number.<br>“P5” Position Code.<br>“SY” Social Security Number.<br>“YV” Participating Area.<br><i>Summarize overlap for all OS projects on a per individual basis.</i> | M ID 2/3   |
| R     | N902      | 127       | Reference Number<br>“D.5” Publications.<br>“D.5.1” Medline Accession Number.                                                                                                                                                                                                                                                                                 | X AN 1/30  |
| O     | N903      | 369       | Free-form Description<br><i>Maximum length of a position title is 40 characters.</i>                                                                                                                                                                                                                                                                         | X AN 1/45  |
| O     | N904      | 373       | Date                                                                                                                                                                                                                                                                                                                                                         | O DT 8/8   |
| N/U   | N905      | 337       | Time                                                                                                                                                                                                                                                                                                                                                         | X TM 4/8   |
| N/U   | N906      | 623       | Time Code                                                                                                                                                                                                                                                                                                                                                    | O ID 2/2   |
| O     | N907      | C040      | Reference Identifier                                                                                                                                                                                                                                                                                                                                         | O          |
| R     | C04001    | 128       | Reference Identification Qualifier<br>“DP” Department Number.                                                                                                                                                                                                                                                                                                | M ID 2/3   |
| R     | C04002    | 127       | Reference Identification                                                                                                                                                                                                                                                                                                                                     | M AN 1/30  |

### 3.33 MTX Segment (2/410)

**Table / Position:** 2 / 410

**Purpose:** To specify textual data.

| Usage | Ref. Des. | Data Elmt | Name                                                                                                                                                                                                                                                        | Attributes  |
|-------|-----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| N/U   | MTX01     | 363       | Note Reference Code                                                                                                                                                                                                                                         | O ID 3/3    |
| R     | MTX02     | 1551      | Message Text<br><i>Maximum length for the Other Support project title is 60 characters.</i><br><br><i>Maximum length for the Other Support major goals is 700 characters.</i><br><br><i>Maximum length for the Other Support overlap is 700 characters.</i> | X AN 1/4096 |
| O     | MTX03     | 1551      | Message Text                                                                                                                                                                                                                                                | O AN 1/4096 |
| N/U   | MTX04     | 934       | Printer Carriage Control Code                                                                                                                                                                                                                               | O ID 2/2    |

### 3.34 SE Segment (2/480)

**Table / Position:** 2 / 480

**Purpose:** To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments).

| Usage | Ref. Des. | Data Elmt | Name                           | Attributes |
|-------|-----------|-----------|--------------------------------|------------|
| R     | SE01      | 96        | Number of Included Segments    | M NO 1/10  |
| R     | SE02      | 329       | Transaction Set Control Number | M AN 4/9   |



## Appendix A. Sample PHS 2590 Application and 194 Transaction Set

This appendix contains a sample PHS 2590 application (pages A, C, E, F, and G). The sample application is followed by the corresponding X12 194 transaction set.

The sample PHS 2590 application contains fictitious information. Although the application data is *realistic* in format, it should not be used as guidance for completing a 2590 application. The purpose of the sample application is to illustrate the relationship between 2590 form data elements and the X12 194 transaction set.

Also, note that within the transaction set certain data elements are italic and bold. These data elements are mapped directly to fields in an NIH database.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                 |                                                                                                                                                                                               |                                                                                                                                                                                                                          |                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Department of Health and Human Services<br>Public Health Services<br><br><b>Application<br/>For Continuation Grant</b>                                                                                                                                                                                                                                                                                                                                                            |  | Review Group                                                                                                                                    | Type                                                                                                                                                                                          | Activity                                                                                                                                                                                                                 | Grant Number<br>5R01CA00000002                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | Total Project Period<br>From: 04/01/96 Through: 03/31/99                                                                                        |                                                                                                                                                                                               |                                                                                                                                                                                                                          |                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | Requested Budget Period:<br>From: 04/01/97 Through: 03/31/98                                                                                    |                                                                                                                                                                                               |                                                                                                                                                                                                                          |                                                                                          |
| 1. TITLE OF PROJECT<br>Atherosclerosis Prevention Study                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                 |                                                                                                                                                                                               |                                                                                                                                                                                                                          |                                                                                          |
| 2. PRINCIPAL INVESTIGATOR OR PROGRAM DIRECTOR (Name and address, street, city, state, zip code)<br><br>Galileo N. Galilei<br>University of Bethesda<br>Atherosclerosis Research Unit<br>461 Ocean Blvd., CSC-32<br>Bethesda, MD 20892                                                                                                                                                                                                                                             |  |                                                                                                                                                 | 4. APPLICANT ORGANIZATION (Name and address, street, city, state, zip code)<br><br>DUNS Number: 112233445<br>IPF Code: 1234567                                                                |                                                                                                                                                                                                                          |                                                                                          |
| 2b. E-MAIL ADDRESS<br>ggalilei@ub.edu                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                                                                                 | 5. ENTITY IDENTIFICATION NUMBER<br>0-13-3454321-A1                                                                                                                                            |                                                                                                                                                                                                                          |                                                                                          |
| 2c. DEPARTMENT, SERVICE, LABORATORY, OR EQUIVALENT<br>MDK                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                 | 6. TITLE AND ADDRESS OF ADMINISTRATIVE OFFICIAL<br><br>Deputy Director<br><br>Dept. of Contracts and Grants<br>1313 Mockingbird Lane, DEI-5555<br>Bethesda, MD 20892<br>tbrahe@munster.ub.edu |                                                                                                                                                                                                                          |                                                                                          |
| 2d. MAJOR SUBDIVISION<br>01                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                 |                                                                                                                                                                                               |                                                                                                                                                                                                                          |                                                                                          |
| 3. ORGANIZATIONAL CODE                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                 |                                                                                                                                                                                               |                                                                                                                                                                                                                          |                                                                                          |
| 7. HUMAN SUBJECTS<br><br><input type="checkbox"/> No<br><input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                              |  | 7a. If "Yes," Exemption no.<br><b>Or</b><br>IRB approval date<br>05/15/96                                                                       | <input checked="" type="checkbox"/> Full IRB <b>or</b><br><input type="checkbox"/> Expedited Review                                                                                           | 7b. Assurance of compliance no.<br>M123456XB                                                                                                                                                                             | 8. VERTEBRATE ANIMALS<br><br><input type="checkbox"/> No<br><input type="checkbox"/> Yes |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                 |                                                                                                                                                                                               |                                                                                                                                                                                                                          | 8a. If "Yes," IACUC approval Date<br>02/01/96                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                 |                                                                                                                                                                                               |                                                                                                                                                                                                                          | 8b. Animal welfare assurance no.<br>A9999-01                                             |
| 9. COSTS REQUESTED FOR NEXT BUDGET PERIOD<br>9a. DIRECT \$                                                                                                                                                                                                                                                                                                                                                                                                                        |  | 9b. TOTAL \$                                                                                                                                    |                                                                                                                                                                                               | 10. INVENTIONS AND PATENTS<br><br><input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If "Yes," <input checked="" type="checkbox"/> Previously reported <input type="checkbox"/> Not previously reported |                                                                                          |
| 11. PERFORMANCE SITE(S)<br>(Organizations and addresses)<br><br>Pharmacology Research Laboratory<br>Bethesda, MD 20892                                                                                                                                                                                                                                                                                                                                                            |  | 12a. PRINCIPAL INVESTIGATOR OR PROGRAM DIRECTOR (Item 2a)<br>Galileo Galilei                                                                    |                                                                                                                                                                                               | AREA CODE<br>(301)<br>(301)                                                                                                                                                                                              | TELEPHONE NO. AND FAX NO.<br>555 1478<br>555 2685                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 12b. NAME OF ADMINISTRATIVE OFFICIAL (Item 6)<br>Tycho H. Brahe                                                                                 |                                                                                                                                                                                               | (301)<br>(301)                                                                                                                                                                                                           | 555-2396<br>555-2835                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 12c. NAME AND TITLE OF OFFICIAL SIGNING FOR APPLICATION ORGANIZATION (Item 15)<br>Giordano Bruno Jr<br>Provost & Senior VP for Academic Affairs |                                                                                                                                                                                               | (301)<br>(301)                                                                                                                                                                                                           | 555-2395<br>555-2835                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | E-MAIL ADDRESS                                                                                                                                  |                                                                                                                                                                                               |                                                                                                                                                                                                                          |                                                                                          |
| 13. Do not use this space.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                 |                                                                                                                                                                                               |                                                                                                                                                                                                                          |                                                                                          |
| 14. PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR ASSURANCE: I certify that the statements herein are true, complete and accurate to the best of my knowledge. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. I agree to accept responsibility for the scientific conduct of the project and to provide the required progress reports if a grant is awarded as a result of this application. |  |                                                                                                                                                 | SIGNATURE OF PI/PD NAMED IN 2a.<br>(In ink. "Per" signature not acceptable.)                                                                                                                  |                                                                                                                                                                                                                          | DATE                                                                                     |
| 15. APPLICATION ORGANIZATION CERTIFICATION AND ACCEPTANCE: I certify that the statements herein are true, complete and accurate to the best of my knowledge, and accept the obligation to comply with Public Health Services terms and conditions if a grant is awarded as a result of this application. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties.                                |  |                                                                                                                                                 | SIGNATURE OF OFFICIAL NAMED IN 12c.<br>(In ink. "Per" signature not acceptable.)                                                                                                              |                                                                                                                                                                                                                          | DATE<br><br>06/02/96                                                                     |

|                                                                                                   |  |                                |                     |
|---------------------------------------------------------------------------------------------------|--|--------------------------------|---------------------|
| <b>PROGRESS REPORT SUMMARY</b>                                                                    |  | GRANT NUMBER<br>5R01CA00000002 |                     |
| PRINCIPAL INVESTIGATOR OR PROGRAM DIRECTOR<br>Galileo Galilei                                     |  | PERIOD COVERED BY THIS REPORT  |                     |
| APPLICANT ORGANIZATION<br>DUNS Number: 112233445                                                  |  | FROM<br>04/01/96               | THROUGH<br>03/31/97 |
| TITLE OF PROJECT (Repeat title shown in Item 1 on first page)<br>Atherosclerosis Prevention Study |  |                                |                     |

- a. Human Subjects (Complete Item 7 on the Face Page)  
 Use of Human Subjects ☐ Change ☒ No Change Since Previous Submission
- b. Vertebrate Animals (Complete Item 8 on Face Page)  
 Use of Vertebrate Animals ☒ Change ☐ No Change Since Previous Submission

(SEE INSTRUCTIONS)

This is where the progress report goes.

Significant rebudgeting of funds:

This is where the explanation for significant rebudgeting of funds goes.

Change in the level of effort of key personnel:

For the next budget period, the level of effort for Copernicus increases to 9 months at 50% and 2 months at 100%, Newton will discontinue working on the project, and will be replaced by John A. Bashear with a level of effort of 50%.

Estimated unobligated balance:

This is where the explanation for unobligated balance goes.

Publications:

Copernicus, Nicholas; Brahe, Tycho; Galilei, Galileo, N.; "Computer assisted identification and classification of infectious and parasitic diseases." Nucleic Acids Research. 38 (1996) 3696-3703.

Sitterly, Charlotte, E.; Galilei, Galileo, N.; "In vitro molecular techniques to study gene structure regulation in bacteria. Microbiol. 101 (Oct 1996) 989-996.

|                                                                                                                                                                                                                                                                                                                                                                                              |                                   |                           |                               |          |                                                                     |                  |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------------------|-------------------------------|----------|---------------------------------------------------------------------|------------------|-------|
| <b>GENDER AND MINORITY INCLUSION</b><br>Provide the number of subjects enrolled in the study <b>to date</b> (cumulatively since the most recent competitive award) according to the following categories. (See Page 8 for definitions.) If there is more than one study, provide a separate table for each study. In addition, report on the subpopulations which are included in the study. |                                   |                           |                               |          | STUDY TITLE<br>Gender and Minority Inclusion Study Title goes here. |                  |       |
|                                                                                                                                                                                                                                                                                                                                                                                              | American Indian or Alaskan Native | Asian or Pacific Islander | Black, not of Hispanic Origin | Hispanic | White, not of Hispanic Origin                                       | Other or Unknown | TOTAL |
| Female                                                                                                                                                                                                                                                                                                                                                                                       | 50                                | 50                        | 50                            | 50       | 50                                                                  | 100              | 350   |
| Male                                                                                                                                                                                                                                                                                                                                                                                         | 35                                | 35                        | 35                            | 35       | 35                                                                  | 70               | 245   |
| Unknown                                                                                                                                                                                                                                                                                                                                                                                      |                                   |                           |                               |          |                                                                     |                  |       |
| TOTAL                                                                                                                                                                                                                                                                                                                                                                                        | 85                                | 85                        | 85                            | 85       | 85                                                                  | 170              | 595   |

## CHECKLIST

GRANT NUMBER

### 1. ASSURANCES/CERTIFICATIONS (See Instructions, Page 9)

The following assurances/certifications are made and verified by the signature of the OFFICIAL SIGNING FOR APPLICATION ORGANIZATION on the FACE PAGE of the application. If unable to certify compliance where applicable, provide an explanation and place it after this page.

•Human Subjects; •Vertebrate Animals; •Debarment and Suspension; •Lobbying; •Delinquent Federal Debt; •Research Misconduct; •Civil Rights (Form HHS 441 or HHS 690); •Handicapped Individuals (Form HHS 641 or HHS 690); •Sex Discrimination (Form HHS 639-A or HHS 690); •Age Discrimination (Form HHS 680 or HHS 690); •Financial Conflict of Interest.

### 2. PROGRAM INCOME (See Instructions, Page 10.)

All applications must indicate whether program income is anticipated during the period(s) for which grant support is requested. If program income is anticipated, use the format below to reflect the amount and source(s).

| Budget Period     | Anticipated Amount | Source(s)                    |
|-------------------|--------------------|------------------------------|
| 04/01/97-03/31/98 | \$50,000           | Howard Hughes Medical Center |

### 3. INDIRECT COSTS

Indicate the applicant organization's most recent indirect cost rate established with the appropriate DHHS Regional Office, or, in the case of for-profit organizations, the rate established with the appropriate PHS Agency Cost Advisory Office. Indirect costs will **not** be paid on foreign grants, construction

grants, grants to Federal organizations, grants to individuals, and conference grants. Follow any additional instructions provided for Research Career Awards, Institutional National Research Service Awards, and specialized grant applications.

☐ DHHS Agreement dated: March 15, 1996 ☐ No Indirect Costs Requested.

☐ No DHHS Agreement, but rate established with \_\_\_\_\_ Date \_\_\_\_\_

### CALCULATION\*

Entire proposed project period:

Amount of base \$ \_\_\_\_\_ x Rate applied \_\_\_\_\_ % = Indirect costs \$ \_\_\_\_\_

Add to total direct costs from form page 2 and enter new total on FACE PAGE, Item 9b.

\*Check appropriate box(es):

☐ Salary and wages base ☐ Modified total direct cost base ☐ Other base (Explain below)

☐ Off-site, other special rate, or more than one rate involved (Explain below)

Explanation (Attach separate sheet, if necessary.):

Principal Investigator/Program Director  
(Last, first, middle):

---

**Other Support**

---

**GALILEI, G.**

ACTIVE

|                                            |                   |     |
|--------------------------------------------|-------------------|-----|
| DCB 950000 (Galilei)                       | 12/01/98-11/30/00 | 20% |
| National Science Foundation                | \$82,163          |     |
| Liposome Membrane Composition and Function |                   |     |

The major goals of this project are to define biochemical properties of liposome membrane components and maximize liposome uptake into cells.

OVERLAP

There is scientific overlap between aim 2 of NSF DCB 950000 and aim 4 of the application under consideration. If both are funded, the budgets will be adjusted appropriately in conjunction with agency staff.

**COPERNICUS, N.**

NONE

**BASHEAR, J.**

ACTIVE

|                                            |                   |              |
|--------------------------------------------|-------------------|--------------|
| 5 RO1 CA 00000-07 (Bashear)                | 04/01/94-03/31/99 | 30% Academic |
| NIH/NCI                                    | \$104,428         | 100% Summer  |
| Gene Therapy for Small Cell Lung Carcinoma |                   |              |

The major goals of this project are to use viral strategies to express the normal p53 gene in human SCLC cell lines and to study the effect of growth and invasiveness of the lines.

OVERLAP

Potential commitment overlap for Dr. Bashear between 5 RO1 CA 00000-07 and the application under consideration. If the application under consideration is funded with Dr. Bashear committed at 50% effort, Dr. Bashear will request approval to reduce his effort on the NCI grant.

|                  |                                |
|------------------|--------------------------------|
| PERSONNEL REPORT | GRANT NUMBER<br>5R01CA00000002 |
|------------------|--------------------------------|

5R01CA00000002

**All Personnel for the Current Budget Period**

| Name                 | Degree(s) | SSN       | Role on Project<br>(e.g. PI, Res. Assoc.) | Date of Birth<br>(MM/DD/YY) | Annual<br>% Effort |
|----------------------|-----------|-----------|-------------------------------------------|-----------------------------|--------------------|
| Galilei, Galileo     |           | 123456789 | PI                                        | 03/03/38                    | 40                 |
| Copernicus, Nicholas |           |           | Research Assistant                        |                             | 32                 |
| Newton, Isaac        |           |           | Staff Scientist                           |                             | 25                 |

## Heading:

ST^194^123456789<NL>

BGN^00^UniversityGrantID01^19960602^1200^^  
6N<NL>

// Date associated with signing official.

// Type of application.

---

## N9 Loop:

N9^4W^^TITLE<NL>

MTX^^ATHEROSCLEROSIS  
PREVENTION STUDY<NL>

// Title of project.

N9^CT^5R01CA00000002<NL>

// NIH grant number.

---

## NM1 Loop:

NM1^AD^1^BRAHE^TYCHO^H<NL>

// Name of administrative official (AO).

N3^DEPT OF CONTRACTS & GRANTS^  
1313 MOCKINGBIRD LANE, DEI-5555<NL>

// Address of AO.

N4^BETHESDA^MD^20892<NL>

// Address of AO.

N9^P5^^DEPUTY DIRECTOR<NL>

// Title of AO.

PER^IC^^TE^3015552396^FX^3015552835^  
EM^TBRAHE@MUNSTER.UB.EDU<NL>

// Telephone and fax of AO.

// Email address of AO.

NM1^1B^1^BRUNO^GIORDANO^^JR<NL>

// Name of the signing official.

N3^DEPT OF CONTRACTS & GRANTS^  
1313 MOCKINGBIRD LANE, DEI-5555<NL>

// Address of the signing official.

N4^BETHESDA^MD^29892<NL>

// Address of the signing official.

N9^P5^^PROVOST & SENIOR VP FOR  
ACADEMIC AFFAIRS<NL>

// Title of the signing official.

PER^IC^^TE^3015552395^FX^3015552835<NL>

// FAX and telephone of the signing official.

NM1^SE^2^^^^^1^112233445<NL>

// Organization DUNS number.

N9^CR^1234567<NL>

// Organization's IPF number.

N9^EI^0123454321A1<NL>

// Organization's EIN.

NM1^BY^2^^^^^1^927645168<NL>

// NIH DUNS # is 927645168

NM1^FA^2^PHARMACOLOGY RESEARCH

|                                        |                                                |
|----------------------------------------|------------------------------------------------|
| <b>LABORATORY</b> <NL>                 | // Performance site organization.              |
| N4^ <b>BETHESDA</b> ^ <b>MD</b> ^20892 | // Performance site city, state, and zip code. |

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## Detail:

### HL Loop:

|                                                                        |                                          |
|------------------------------------------------------------------------|------------------------------------------|
| HL^1^^PC^1<NL>                                                         | // Project loop                          |
| DTM^193^ <b>19960401</b> <NL>                                          | // Total project period (From).          |
| DTM^194^ <b>19990331</b> <NL>                                          | // Total project period (Through).       |
| DTM^582^^^^RD8^ <b>19960401-19970331</b> <NL>                          | // Report period (From-Through)          |
| PAM^A3^ <b>36</b> ^ <b>MO</b> <NL>                                     | // Project duration in months            |
| YNQ^H4^Y^^^ <b>EXPLANATORY TEXT REGARDING LOBBYING ACTIVITIES</b> <NL> | // Assurance/certification for lobbying. |
| YNQ^6G^Y<NL>                                                           | // Change in use of Vertebrate Animal    |

---

### N9 Loop:

|                                                                                                                                                                                                                                                                 |                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| N9^F4^ <b>M123456XB</b><br><b>FULL</b> ^ <b>19960515</b> <NL>                                                                                                                                                                                                   | // Assurance of compliance number.<br>// Type of review and IRB approval date. |
| N9^Y9^A <b>9999-01</b> ^^<br><b>19960201</b> <NL>                                                                                                                                                                                                               | // Animal welfare assurance number.<br>// IACUC approval date.                 |
| N9^L4^A<NL>                                                                                                                                                                                                                                                     | // Updated abstract.                                                           |
| MTX^^ <b>THIS IS WHERE THE UPDATED ABSTRACT GOES</b> <NL>                                                                                                                                                                                                       |                                                                                |
| N9^L4^C.1<NL>                                                                                                                                                                                                                                                   | // Change in level of effort of key personnel.                                 |
| MTX^^ <b>For the next budget period, the level of effort for Copernicus increases to 9 months at 50% and 2 months at 100%, Newton will discontinue working on the project, and will be replaced by John A. Bashear with a level of effort of 50%.&lt;NL&gt;</b> |                                                                                |
| N9^L4^I.7<NL>                                                                                                                                                                                                                                                   | // Budget justification.                                                       |
| MTX^^ <b>THIS IS WHERE THE EXPLANATION FOR SIGNIFICANT REBUDGETING OF FUNDS GOES</b> <NL>                                                                                                                                                                       |                                                                                |
| N9^L4^E.4<NL>                                                                                                                                                                                                                                                   | // Program income.                                                             |
| MTX^^ <b>\$50,000 FROM HOWARD HUGHES MEDICAL CENTER DURING BUDGET PERIOD 4/1/97-3/31/98</b> <NL>                                                                                                                                                                |                                                                                |



N9^L4^I<NL>

MTX^^***THIS IS WHERE THE PROGRESS REPORT GOES***<NL> // Progress report text.

N9^L4^I.5<NL>

MTX^^***THIS IS WHERE THE EXPLANATION FOR UNOBLIGATED BALANCE GOES***<NL> // Estimated unobligated balance.

N9^L4^I.6<NL> // Invention indicator.

MTX^^***REPORTED***<NL> // Invention previously reported?

N9^43^^MATRIX<NL> // Gender and minority inclusion matrix

MTX^^***GENDER AND MINORITY INCLUSION STUDY TITLE GOES HERE.*** <NL> // Study Title

---

#### INX Loop:

INX^1^1|A1|F2<NL> // Matrix start – absolute reference  
// cells loaded horizontal, left to right.

K3^35<NL> // # of Indian males

K3^35<NL> // # of Asian males

K3^35<NL> // # of Black males

K3^35<NL> // # of Hispanic males

K3^35<NL> // # of White males

K3^70<NL> // # of Other males

K3^50<NL> // # of Indian females

K3^50<NL> // # of Asian females

K3^50<NL> // # of Black females

K3^50<NL> // # of Hispanic females

K3^50<NL> // # of White females

K3^100<NL> // # of Other females

---

#### PPL Loop:

PPL^^^T<NL> // Begin total project budget.

---

**PD Loop:**

PD^CC^19970401^DO^1^ANY^38<NL> // Requested budget period (From).

PDD^12<NL> // Budget period is for 12 months.

PD^CC^19970401^DO||8S^ANY^01^GALILEI, GALILEO  
^PRINCIPAL INVESTIGATOR<NL> // Name and role of person.

PDD^12^4.8^40<NL> // Appointment months = 12.  
// 40% of 12 months = 4.8 months.  
// 40% effort on project.

PD^CC^19970401^DO||8S^ANY^01^COPERNICUS, NICHOLAS  
^RESEARCH ASSISTANT<NL> // Name and role of person.

PDD^11^6.49^59<NL> // Appointment months = 11.  
// (9 mon – academic, 2 mon – summer)  
// Average % effort over 11 months is 59

PD^CC^19970401^DO||8S^ANY^01^BASHEAR, JOHN, A.  
^STAFF SCIENTIST<NL> // Name and role of person.

PDD^12^6^50<NL> // Appointment months = 12.  
// 50% of 12 months = 6 months.  
// 50% effort on project.

---

**LX Loop:**

LX^1<NL>

NM1^K8<NL> // Code for Indirect Cost Rate

N9^AH^CURRENT^19960315<NL> // Date for the current indirect cost rate

**HL Loop:**

HL^2^1^26^1<NL> // Key person loop for Galileo.

QTY^37^.4<NL> // Galileo's level of effort is 40%.

---

**LX Loop:**

LX^1<NL>

NM1^9P^1^GALILEI^GALILEO^N<NL> // Identification of PI (name and role)

N2^UNIVERSITY OF BETHESDA<NL> // PI organization

|                                                                  |                                                       |
|------------------------------------------------------------------|-------------------------------------------------------|
| N3^ATHEROSCLEROSIS RESEARCH UNIT^<br>461 OCEAN BLVD., CSC-32<NL> | // PI address                                         |
| N4^BETHESDA^MD^20892<NL>                                         | // PI city, state, and zip code                       |
| PER^IC^^TE^3015551478^FX^3015552685^<br>EM^GGALILEI@UB.EDU<NL>   | // Telephone and fax of PI<br>// Email address of PI. |
| DMG^^19380303<NL>                                                | // Date of birth of PI                                |

---

**N9 Loop:**

|                                                                                                                                                                                                                |                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| N9^19^^01^^^DP MDK<NL>                                                                                                                                                                                         | // Major subdivision and department of PI. |
| N9^SY^123456789<NL>                                                                                                                                                                                            | // SSN of PI.                              |
| N9^L4^D.5<NL>                                                                                                                                                                                                  | // First publication for PI.               |
| MTX^^ <i>Nicholas Copernicus, Tycho Brahe, Galileo N. Galileo, Computer assisted identification and classification of infectious and parasitic diseases. Nucleic Acids Research. 38 (1994) 3696-3703.</i> <NL> |                                            |
| N9^L4^D.5<NL>                                                                                                                                                                                                  | // Next publication for PI.                |
| MTX^^ <i>Charlette E. Sitterly, Galileo N. Galileo, In vitro molecular techniques to study gene structure regulation in bacteria. Microbiol. 101 (Oct 1996) 989-996.</i> <NL>                                  |                                            |

---

**HL Loop:**

|                                                                       |                                                                                                   |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| HL^3^2^OS^0<NL>                                                       | // Active other support for Galileo                                                               |
| PAM^37^24^MO^F^82163^CC^<br>193^19981201^^194^20001130^^<br>14^20<NL> | // Active support and annual direct costs<br>// Support period start and end<br>// Percent effort |

---

**LX Loop:**

|                                             |                      |
|---------------------------------------------|----------------------|
| LX^1<NL>                                    |                      |
| NM1^92^2^NATIONAL SCIENCE<br>FOUNDATION<NL> | // Name of OS source |

---

**N9 Loop:**

|                                                              |                      |
|--------------------------------------------------------------|----------------------|
| N9^CT^DCB950000<NL>                                          | // OS project number |
| MTX^^ <i>Liposome Membrane Composition and Function</i> <NL> | // OS project title  |
| N9^K5^^GOALS<NL>                                             | // OS goals          |

MTX^^*The major goals of this project are to define biochemical properties of liposome membrane components and maximize liposome uptake into cells.*<NL>

N9^YV^^OVERLAP<NL> // OS overlap

MTX^^*There is scientific overlap between aim 2 of NSF DCB 950000 and aim 4 of the application under consideration. If both are funded, the budgets will be adjusted appropriately in conjunction with agency staff.*<NL>

---

**HL Loop:**

HL^4^1^26^0<NL> // Key person loop for Copernicus.

QTY^37^.32<NL> // Copernicus' level of effort is 32%.

---

**LX Loop:**

LX^1<NL>

NM1^9K^1^COPERNICUS^NICHOLAUS<NL> // Key person name.

EMS^RESEARCH ASSISTANT<NL> // Role of key person.

---

**HL Loop:**

HL^5^1^26^0<NL> // Key person loop for Newton.

QTY^37^.25<NL> // Newton's level of effort is 25%.

---

**LX Loop:**

LX^1<NL>

NM1^9K^1^NEWTON^ISAAC<NL> // Key person name.

EMS^STAFF SCIENTIST<NL> // Role of key person.

---

**HL Loop:**

HL^6^1^26^1<NL> // Key person loop for Bashear.

---

**LX Loop:**

LX^1<NL>

NM1^9K^1^BASHEAR^JOHN^A<NL> // Key person name.

EMS^STAFF SCIENTIST<NL> // Role of key person.

---

**HL Loop:**

HL^7^6^OS^0<NL> // Active other support for Bashear

PAM^37^24^MO^F^104428^CC^ // Active support and annual direct costs  
193^19940401^^194^19990331^^ // Support period start and end  
14^47.5<NL> // Average of academic and summer periods

---

**LX Loop:**

LX^1<NL>

NM1^92^2^NIH/NCI<NL> // Name of OS source

---

**N9 Loop:**

N9^CT^5RO1CA0000007<NL> // OS project number

MTX^^Gene Therapy for Small Cell Lung // OS project title  
Carcinoma <NL>

N9^K5^^GOALS<NL> // OS goals

MTX^^The major goals of this project are to use viral strategies to express the normal p53 gene in  
human SCLC cell lines and to study the effect of growth and invasiveness of the lines.<NL>

N9^YV^^OVERLAP<NL> // OS overlap

MTX^^Potential commitment overlap for Dr. Bashear between 5 RO1 CA 00000-07 and the  
application under consideration. If the application under consideration is funded with Dr. Bashear  
committed at 50% effort, Dr. Bashear will request approval to reduce his effort on the NCI grant.<NL>

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SE^120^123456789<NL> // Transaction set trailer.